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Stottlemeyer

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(54) **ENCAPSULATED VOLUMETRIC ACOUSTIC
ARRAY IN THE SHAPE OF A TOWED BODY**

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(57) **ABSTRACT**

An encapsulation assembly includes a housing having a nose end, a tail end, and a body portion between the nose end and the tail end. A plurality of acoustic transducers are positioned within the body portion of the housing, each of the plurality of acoustic transducers having a wiring connection attached thereto. A tow cable is connected to the nose end of the housing and is in communication with the wiring connection from each of the plurality of acoustic transducers. A characteristic of the assembly is that at least the body portion of the housing is entirely formed of a solid casting of plastic material thereby environmentally isolating the plurality of acoustic transducers within the body portion of the housing. This configuration prevents water intrusion into the transducer elements, and increases the cavitation threshold for the acoustic array, thereby allowing the array to be driven to higher acoustic intensities.

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(52) **U.S. Cl.** **367/20; 367/106; 367/154;**
367/130

(58) **Field of Search** 367/20, 153, 154,
367/106, 130; 174/101.5

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7 Claims, 1 Drawing Sheet

